

ABSTRACT

5 The present invention relates to a filter (45) for filtering
signals in a telecommunications system, a method of designing
said filter, and a corresponding splitter filter. The
inventive filter (45) is characterised in that it is passive
and has a complex impedance which gives good impedance
10 matching to the complex impedance of a transmission line.
Because the filter is passive, it does not need to be powered
and can thus be placed in locations that lack a power supply.
The filter will also function in the event of a power
failure. Because the filter has an impedance which can be
well matched to the complex impedance of a transmission line,
problems relating to echo and side tones can be minimised.

15 The design of the inventive filter has been made possible by
utilising that a certain determined level of losses can often
be accepted in respect of the filter. The impedance of the
filter can be made similar to the impedance of a transmission
20 line, by intentionally introducing into the filter losses
(15, 17) which assist in making the impedance of the filter
more complex. This can be achieved without the use of active
elements.

25 Publication Figure: Figure 9